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The Mediation Effect Firm Performance on Green Innovation and Firm Value: Evidence the Mining Industry

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Abstract

Global warming is currently an issue that is widely discussed both the accounting literature and others. The topic of environmental performance is gaining increasing attention from academics and politics when it is associated with each country's policies regarding environmental damage. This article to investigate both the direct and indirect the effect of green innovation and firm value on financial performance as mediating variable. The authors find that the green

innovation has a positive effect on the firm value and financial performance full mediate the effect green innovation and firm value

Keywords: Global warming, Green innovation, Financial performance, Mediating variable

El efecto de mediación El rendimiento de la empresa en la innovación ecológica Y valor firme: evidencia de la industria minera

Resumen

El calentamiento global es actualmente un tema que se discute ampliamente tanto en la literatura contable como en otras. El tema del desempeño ambiental está ganando cada vez más atención por parte de académicos y políticos cuando está asociado con las políticas de cada país con respecto al daño ambiental. Este artículo para investigar tanto el efecto directo como indirecto de la innovación verde y el valor de la empresa en el desempeño financiero como variable mediadora. Los autores encuentran que la innovación verde tiene un efecto positivo en el valor de la empresa y el desempeño financiero mediando completamente el efecto de la innovación verde y el valor de la empresa.

Palabras clave: Calentamiento global, innovación verde, desempeño financiero, variable mediadora

1. INTRODUCTION

Environmental innovation is now an issue discussed in the accounting literature and others. This topic increases from academics and politics when it is related to each country's policies regarding

environmental damage. Environmental damage caused by the implementation of mining activities that do not pay attention to environmental conditions has caused an increase in the area of critical land. Walhi East Java reported on its official website (www.walhijatim.or.id) in 2016 there were 608,913 hectares of forest land in East Java experiencing environmental damage due to excessive exploitation of mines. Walhi Aceh recorded the total area of critical land in Aceh to be 460,099 hectares (www.walhiaceh.or.id) in addition to damaging the coal mining ecosystem in Bengkulu, causing damage to the watershed, resulting in reduced clean water supply (www.walhibengkulu.or.id).

Environmental damage was increasing due to because mining activities are becoming a concern of the business world, because people increasingly care about social and environmental issues, thus demanding companies to carry out social and environmental responsibilities. This encourages the creation of green innovation to reduce environmental damage (Boons & Lüdeke-Freund, 2013), (Ben Arfi et al., 2018). Environmental performance, the company's efforts to meet the expectations of various stakeholders for the availability of transparent and accountable information. This is consistent with stakeholder theory which concludes that caring about the environment is interpreted as a form of corporate communication in bridging and harmonizing the different interests of stakeholders (R Edward Freeman, 1984), (Weng et al., 2015), (Ezzi & Jarboui , 2016).

Several studies reveal the motivation of companies to do green innovation, namely external party pressures and the availability of corporate financial resources in allocating environmental costs (Rosli & Sidek, 2013), (Weng et al., 2015). Soltmann et al. (2013), reveals OECD Countries (Austria, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom, and the United States) carried out green innovation in the presence of political issues. Suki (2017), revealed an increase in purchasing power in Malaysia because the company has been producing environmentally friendly products. Companies that care about the environment in their operations get added value to attract investors (Osazuwa & Che-Ahmad, 2016).

Green innovation is an indicator of company performance in creating better environmental conditions through effective and efficient management mechanisms (Giannarakis, 2017). Green innovation is used in the company's operational activities in the form of environmentally friendly processes and products to enhance the company's competitiveness including innovation in technology, such as energy savings, pollution prevention, recycling, waste production or environmentally friendly company management (YS Chen et al., 2006), (Dangelico & Pontrandolfo, 2010), (Kam-Sing Wong, 2012), (Alhadid & Abu-Rumman, 2014), (Weng et al., 2015), (Tang et al., 2017), (Xie et al., 2019). Green innovation can improve company performance, because it reduces the environmental impact during the product cycle, meets market needs, is the key to achieving growth and environmental sustainability and helps companies deal with the

environment to develop new market opportunities (Dangelico & Pontrandolfo, 2010), (Christensen, 2011), (Chiou et al., 2011), (Kam-Sing Wong, 2012), (Cheng et al., 2014).

In additional, green innovation can increase firm value if managed properly. Umrie & Yuliani, (2014), revealed that investors will invest in companies that care about the environment. Burnett et al. (2011), investment in the environment increases a company's burden in the short term, but increases future profits to increase investor confidence and confidence (Horváthová, 2012). The firm value can be seen from the movement of stock prices. The higher the stock price, the higher the company's value and attractiveness to investors or potential investors in investing their funds (Kurniasari & Warastuti, 2015), (Sabrin et al., 2016).

Rubera and Kirca (2017), prove that innovation has a significant effect on firm value (Czarniewski, 2015), (Kurniasari & Warastuti, 2015), (Ulum, 2015), (Chan et al., 2016), (Osazuwa & Che-Ahmad , 2016), (Sabrin et al., 2016), (Rajapathirana & Hui, 2017), (Usman et al., 2017), (Deswanto et al., 2018), (Soewarno et al., 2018), (Tariq et al., 2017). However, Meng et al. (2014) revealed green innovation and market valuation were not significant to firm value (Dangelico & Pontrandolfo, 2010), (Chang, 2011), (Gunday et al., 2011), (Driessen et al., 2013), (Soltmann et al., 2013), (Santos et al., 2014), (Manopo & Arie, 2016), (Sarumpaet et al., 2017), (Sulastri et al., 2018), (Deswanto et al., 2018). The inconsistency of previous research raises the opportunity for variables that mediate the effect of environmental

performance on firm value, namely financial performance. Financial performance is the main indicator of the management control system which has shifted from a financial performance model to a model of social and environmental performance because it combines the expectations of various stakeholders, such as shareholders, customers, employees and so on (R Edward Freeman, 1984), (Ezzi & Jarboui, 2016).

This research was conducted to determine the mediating effect of financial performance on the effect of green innovation on firm value, bearing in mind that not all companies in Indonesia participate in government programs. In addition, the study was conducted to see the inconsistencies of the results with previous studies.

Stakeholder Theory:

Stakeholder theory helps company managers understand of stakeholder environment for managing the environment more effectively and efficiently. Chang, (2011) and Doran & Ryan, (2016), revealed that the role of stakeholders becomes important when companies will conduct green innovation to reduce negative impacts on the environment, namely environmental issues involving the interests of various groups in society that can disrupt their quality of life, the era of globalization has pushed the traded products to be environmentally friendly. Investors tend to choose companies that own and develop environmental policies and programs and Social Institutions (NGOs) and environmentalists are increasingly vocal in criticizing companies that have not implemented green innovation (Osazuwa & Che-Ahmad, 2016).

Green Innovation and Firm Value:

Sabrin et al. (2016) states that company performance has a positive effect on firm value. Sabrin et al. (2016), investors expect dividend payments when profitability is high. Rubera & Kirca, (2017), revealed that innovation can increase value of company, because companies are able to utilize resources effectively and efficiently (Berzkalne, I., & Zelgalve, 2014), (Usman et al., 2017), (Warusawitharana, 2015), (Guenster et al., 2011), (Osazuwa & Che-Ahmad, 2016). Schueth, (2003), revealed that a company that is run must produce improvements to the environment because now it is impossible to work without caring about the community and the environment. Based on the description, this research develops the following hypotheses:

H1: Green Innovation has a positive effect on firm value

Green Innovation and Financial Performance:

Stakeholder theory reveals that the company will inform all forms of responsibility for activities carried out related to the environment. Financial performance is an important indicator for investors in measuring the success of a company. Environmental performance of the company's efforts to reduce negative impacts on the environment. Investors expect returns on their investments. Return is obtained if the company is able to produce good performance. Rosli & Sidek (2013), revealed that green innovation has a positive effect on financial performance (Camisón & Villar-López, 2014), (Weng et al., 2015), (Singh et al., 2016), (Arenhardt et al., 2016) , (Hojnik &

Ruzzier, 2017), (Saedi & Othman, 2017), (Usman et al., 2017), (Tang et al., 2017), (Rajapathirana & Hui, 2017), (Xie et al., 2019). However, Dangelico & Pujari (2010), revealed that not all companies can create environmentally friendly industries, because they require high costs, too high prices offered in the market, impacting down corporate profits (RJ Lin et al., 2014), (Santos et al., 2014). Environmental performance by companies to avoid protests or environmental penalties, increase productivity, enhance corporate reputation, foster green awareness images, develop new markets, and achieve competitive advantage first mover (YS Chen et al., 2006). Referring to the theory and empirical evidence of previous research, it can be hypothesized as follows:

H2: Green innovation has a positive effect on financial performance

Green Innovation, Financial Performance and Firm Value:

Financial performance is a key indicator of the management control system which has shifted from a financial performance model to a social and environmental performance model because it combines the expectations of various stakeholders, such as shareholders, customers, employees and so on (ER Freeman, 2011), (Ezzi & Jarboui, 2016). Firm value is an important indicator for investors in company performance mediating the influence of green innovation and corporate value (Rajapathirana & Hui, 2017), (Chan et al., 2016). Environmental innovation that has been carried out by companies can increase competitive advantage and company performance (YS Chen et al., 2006), (Lee et al., 2012), (Rosli & Sidek, 2013), (R. Lin et al., 2013), (R.-H. Chen, 2014), (Quoc Duy & Hong Tuan, 2014),

(Karabulut, 2015), (Weng et al., 2015), (Ezzi & Jarboui, 2016), (Singh et al., 2016), (Mohd Suki, 2017), (Miroshnychenko et al., 2017), (Saedi & Othman, 2017), (Tang et al., 2017). Based on the description, it can be hypothesized as follows:

H3: Green innovation has a positive and significant effect on company value through financial performance

Financial Performance and Firm Value:

Financial performance is very meaningful for the sustainability of the company (Sabrin et al., 2016). Increased earnings per share attracting investors to invest can increase the firm value (Ulum, 2015), (Sabrin et al., 2016), (Sucuahi & Cambarihan, 2016), (Usman et al., 2017), (Sulastri et al., 2018), (Tariq et al., 2019). Sabrin et al. (2016) and Kurniasari & Warastuti (2015), provide empirical evidence that profitability has a significant positive effect on firm value. The results of previous studies are not consistent with research conducted by Manopo & Arie (2016) Sulastri et al. (2018) Kurniasari et al. (2018), shows that profitability negatively affects the firm value, this is due to the general view of shareholders regarding the prosperity obtained from their investments based solely on share prices rather than accounting earnings as informed by the company. Based on the empirical evidence above, it can be hypothesized:

H4: Financial Performance has a positive effect on Firm Value

2. METHODOLOGY

The population in this study is the mining industry registered on the Indonesia Stock Exchange in 2012-2018. Research samples are companies that publish annual reports and the data used in this study are available. The sampling technique is to use saturated samples. Saturated sampling is a sampling technique when all members of the population are used. The company's annual report in this study is accessed from the website www.idx.go.id. The following Table 1 presents a list of the number of study samples.

Table 1: Research Samples

No	Criteria	2012	2013	2014	2015	2016	2017	2018
	Mining companies							
1	listed on the Indonesia Stock Exchange 2012-2018	30	32	31	30	29	30	31
2	The data of Company is not complete	8	10	9	8	7	8	10
3	Total	22	22	22	22	22	22	21

Source: data processed, 2020

Green innovation refers to improvements in manufacturing processes and systems to reduce negative impacts on the environment, such as energy savings, pollution prevention, waste recycling and others (Dangelico & Pujari, 2010) measured using PROPER with a value of 1 to 5, 1 for the company those that get black PROPER, 2

companies that get red PROPER, 3 companies that get blue PROPER, 4 companies that get green color and 5, for companies that get gold PROPER, (Sarumpaet et al., 2017), (Deswanto et al., 2018); (Soewarno et al., 2018). The method for calculating environmental performance based on the PROPER rating is as follows:

Gold, environmental performance: very very good, given a PROPER score = 5

Green, environmental performance: very good, rated PROPER = 4

Blue, environmental performance: good, given a PROPER score = 3

Red, environmental performance: poor, given PROPER = 2

Black, environmental performance: very poor, given PROPER = 1

Financial performance is the result of the achievements achieved by each company in carrying out each of its business within a certain period of time in the financial unit. Al-Matariet al. (2014), revealed that the company's performance as the efficiency and effectiveness of the company's activities from operational for one year. Company performance is measured based on financial performance, namely ROA (Return on Assets)

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$$

Firm value is the level of success of a company in managing its resources based on the assessment of investors. Firm value is measured based on market performance with Tobin's q (Chung & Pruitt, 2007).

$$\text{Tobin's } Q = \frac{BVTA - BVCE + MVCE}{BVTA}$$

The analysis used in the data processing in this study was PLS-SEM with statistical software tools Warp PLS 6.0 (Solimun & Ratmono, 2013). The Partial least square method in this study aims to see the effect between variables. The independent variable is green innovation which is proxied by PROPER. Intervening variables of financial performance which are proxied by ROA (Return on Assets). The dependent variable, which is the firm value is proxied by Tobin's Q. The statistical model of this study is:

$$FV_{it} = \alpha_0 + \beta_1 GPI_{it} + \beta_2 FS_{it} + \beta_3 FA_{it} + \varepsilon_{it}$$

$$FP_{it} = \alpha_0 + \beta_1 GPI_{it} + \varepsilon_{it}$$

3. RESULTS and DISCUSSION

Measurement of the inner model is intended to predict the role of financial performance on the influence of green innovation on firm value. Measurement of the inner model in terms of the adjusted R Square value by considering the Q-Square value. The following inner model tests will be presented in Table 2 below:

Table 2: Inner Model Output Results

Dependen Variabels	adjusted R ²	Q-Square
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Financial Performance (ROA)	0.086	0.483
Firm Value (Tobin'S Q)	0.108	0.586

Source: data processed, 2020

Based on Table 2 above, it is shown that financial performance or ROA has an adjusted R² value of 0.086 or 8.6%. This means that the green innovation variable is able to explain the company's financial performance by 8.6% while the rest is explained by other variables not used in this study. Firm value has an adjusted R² value of 0.483 or 48.3% which means that green innovation is able to explain the firm value at 48.3% while the rest is explained by other variables not used in this study. Q-square value or commonly called stoner-geisser coefficient shows that the independent variable in this study that is green innovation has good predictive validity because the Q-square value > 0.

This study uses four fit model sizes including: Average Path Coefficient (APC), Average R-Square (ARS), Average Adjusted R-Square (AARS) and Average Block Variance Inflation Factor (AVIF). AARS is used to measure the average value of the path coefficient, R-squared and adjusted R-square produced in the model. The four sizes of the fit model are measured based on the required ρ -value $\rho \leq 0.05$ [67], [68]. While AVIF is used to test the collinearity problem in the PLS model it is required to be ≤ 5 but the recommended value is AVIF ≤ 3.3 [69].

Testing the fit model is presented in Table 3 below.

Table 3: Model Fit Test Output Results

Average Path Coefficient (APC)	0.219; $P \leq 0.001$
Average R-Squared (ARS)	0.299; $P \leq 0.003$
Average Adjusted R-Square (AARS)	0.285; $P \leq 0.007$
Average Block Variance Inflation Factor (AVIF)	1.049

Source: data processed, 2020

The results of testing is model fit on the research. In accordance with the table above, it can be seen that APC, ARS and AARS have a value of p -value ≤ 0.05 and AVIF value ≤ 3.3 which indicates that there is no multi collinearity problem between the proxy and the variables used.

This research has two hypotheses to test the direct and indirect test using mediation variables. The results of the influence before and after the mediation variables are included are presented in Table 4. Table 4 shows that the direct influence of green innovation on firm value has a positive and significant effect on firm value. This supports H1 which states that green innovation influences firm value. Financial performance mediates the influence between the green process of innovation and firm value, so that H3 is accepted.

Table 4: PLS results (path coefficient and p value)

Panel A. Direct Effect

Relationship between	<i>Path Coefficient</i>	<i>p-value</i>
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the variables

EP FV → 0.08 0.03**

Panel B. Indirect Effect

Relationship between Path Coefficient p-value

the variables

EPFV → 0.01 0.44

EPKK → 0.15 <0.01***

FP FV → 0.19 <0.01***

Source: data processed, 2020

The Information: *** $\rho < 0.01$, ** $\rho < 0.05$, * $\rho < 0.1$

Table 4 panel B, the indirect effect / mediation, shows that green innovation has a positive and significant effect on financial performance (path coefficient = 0.15 and $p > 0.05$), means accepting H2 stating that green innovation influences financial performance. Financial performance has a positive and significant effect on firm value (Path coefficient = 0.19 and p value < 0.05), meaning that H4 is accepted. Financial performance increases the firm value.

Green innovation has a significant positive effect on firm value. This shows that the green innovation carried out by the company is able to increase the firm value. The results of this study are in line with research conducted by Rubera & Kirca, (2017); Sucuahi & Cambarihan (2016), revealed that innovations made by the company on an ongoing basis, then the firm value for the better. To reduce the

negative impact on the environment a number of companies have carried out green innovation as evidenced by the PROPER certification as a structured standard that is a reference in implementing environmentally friendly. When company's express green innovation, the company is considered responsible for the environment. Thus, the company can increase the confidence of investors, so that the company's value increases. This study explains that the more companies in Indonesia implement green innovation, the company is considered to have the ability to utilize its energy resources efficiently by reducing environmental damage and protecting ecological balance. Therefore, people and stakeholders are interested in buying their products. When the company gets bigger sales, the value of the company increases in terms of stock movements. The results of this study are in conflict with Deswanto et al. (2018); Sarumpaet et al. (2017), states that the company's green innovation can reduce the firm value.

Green innovation has a significant positive effect on financial performance. This shows that the better the company's green innovation, the better its financial performance. The results of this study are consistent with research by Soewarno et al. (2018); Nishitani et al. (2017). The positive influence between green innovation and financial performance in this study, because most companies in Indonesia have done green innovation, so that the company's financial performance has improved. When the company is considered to have a responsibility to the environment, the opportunity to increase sales is increasingly open. Investment in environmental improvement will add

burden to the company and community sustainability in the short term, but it will improve the company's financial performance. This statement is in accordance with stakeholder theory that companies that pay attention to the environment have an impact on increasing profits Freeman, (1984); Burnett et al. (2011). The sustainability of the company's business is guaranteed if the company does not only pursue profit but is concerned about the condition of the community and the environment by preserving the environment, so that the company indirectly benefits health and comfort as well as the availability of resources (Soewarno et al., 2018). This is in accordance with the results of the assessment from the Ministry of Environment that PROPER participants who are listed on the Indonesia Stock Exchange have carried out their activities based on the concept of environmentally friendly and sustainable growth. In addition, it provides positive value for investors for companies that comply with environmental regulations. The results of this study are not in line with Deswanto et al. (2018); Nishitani et al. (2017); Sarumpaet et al. (2017).

The results of this study indicate that financial performance is able to mediate green innovation on firm value. This shows the higher financial performance of the company, the firm value increases. Companies must fulfill the rights of stakeholders related to information on company activities such as pollution, social movements and the company's business for safety in order to obtain support and face the level of competition between industries Gray et al. (1995); Umrie &

Yuliani, (2014); Warusawitharana, (2015); Sucuahi & Cambarihan, (2016; Rubera & Kirca, 2017; Sulastri et al. (2018). The results of this study are not in line with the research of Deswanto et al. (2018). Green innovation that has been carried out by companies is positively correlated with the company's internal and external interests Therefore, companies have become more responsive to the environmental conditions in which they operate, one of which is through environmental responsibility activities and carrying out various programs offered by the government both nationally and internationally, such as PROPER participants.

Financial performance has a significant positive effect on firm value. This shows that the better the company's financial performance, the higher the price of shares per sheet. High earnings per share attracts investors to invest so that the firm value increases Ulum, (2015); Sabrin et al. (2016); Sucuahi & Cambarihan, (2016); Usman et al. (2017); Sulastri et al. (2018); Tariq et al. (2019). Sabrin et al. (2016), provides empirical evidence that profitability has a significant positive effect on firm value (Kurniasari & Warastuti, 2015). Profitability shows the effectiveness of the company in generating profit levels by managing assets owned by the company, so that profitability is able to influence investors' assessment of the company in the future. Sabrin et al. (2016), revealed that the higher the profitability, the company has good prospects so that investors will pay higher at the company. The results of this study are not consistent with research conducted by Manopo & Arie, (2016); Sulastri et al. (2018); Kurniasari & Warastuti, (2015) shows that profitability has a negative

effect on the value of the company, this is due to the general view of shareholders regarding the prosperity obtained from their investments based solely on share prices rather than accounting earnings informed by the company.

4. CONCLUSION

The purpose of this study is to examine the role of financial performance on the influence of green innovation on firm value. Green innovation using the PROPER measure shows a significant positive effect on firm value. Green innovation influences financial performance which is proxied using ROA. Financial performance has a significant positive effect on firm value proxied by Tobin's Q. Full financial performance mediation on green innovation on firm value. This indicates that financial performance cannot directly affect the value of the company but through financial performance.

The research results support stakeholder theory, companies are required to create environmental sustainability by carrying out various innovations in order to reduce negative impacts on the environment (RE Freeman et al., 2010), (Dangelico & Pujari, 2010), (Aguilera-Caracuel & Ortiz-de-Mandojana , 2013), (Cahyanto et al., 2014), (Czarniewski, 2015), (Doran & Ryan, 2016), (Ezzi & Jarboui, 2016), (Arenhardt et al., 2016), (Osazuwa & Che-Ahmad , 2016), (Tang et al., 2017), (Kombih & Suhardianto, 2017), (Miroshnychenko et al., 2017),

(Rajapathirana & Hui, 2017), (Ben Arfi et al., 2018), (Xie et al., 2019). Eiadat et al. (2008), revealed that the survival and financial performance is determined by the innovation strategy carried out by the company and supports government programs to make the industrial estate environmentally friendly.

Green innovation as a form of environmental strategy in the form of financial and non-financial investment (Baker & Sinkula, 2005). Environmental innovation costs for companies, especially developing countries, but increases profits in the future (Burnett et al., 2011), (Horváthová, 2012). Rajapathirana & Hui (2017), financial performance is the main assessment of investors who mediate environmental performance and corporate value can increase corporate value in the internal and external environment (Usman et al., 2017). Guenster et al. (2011), revealed that environmental innovation can increase firm value, because the technology used by the company is safe for the environment and does not cause negative impacts during the production process (Osazuwa & Che-Ahmad, 2016).

This study has limitations that can be taken into consideration for further research. First, the sample used is only mining companies with an observation period during 2012-2018. Both financial performance in this study only uses ROA. Third, the proxy for environmental performance is limited to companies that obtain PROPER. With this limitation, it is hoped that future research can increase these limitations in this study. First, further research in order to be able to add samples other than mining companies and increase research time. Second, further research can use other measures

available besides ROA. Third, further research can add measurement variables to environmental performance, such as ISO 14001.

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REFERENCES

AGUILERA-CARACUEL, J., & ORTIZ-DE-MANDOJANA, N. (2013). Green Innovation and Financial Performance: An Institutional Approach. **Organization and Environment**, **26(4)**, 365–385.

AL-MATARI, E. M., AL-SWIDI, A. K., & FADZIL, F. H. B. (2014). The Measurements of Firm Performance's Dimensions. **Asian Journal of Finance & Accounting**, **6(1)**, 24.

ALHADID, A. Y., & ABU-RUMMAN, A. H. (2014). The Impact of Green Innovation on Organizational Performance, Environmental Management Behavior as a Moderate Variable: An Analytical Study on Nuqul Group in Jordan. **International Journal of Business and Management**, **9(7)**.

ARENHARDT, D., BATTISTELLA, L., & GROHMANN, M. (2016). The Influence of the Green Innovation in the Search of Competitive Advantage of Enterprises of the Electrical and Electronic Brazilian Sectors. **International Journal of Innovation Management**, **20(01)**, 1650004.

BAKER, W. E., & SINKULA, J. M. (2005). Market Orientation and the New Product Paradox. 3, 483–502.

BEN ARFI, W., HIKKEROVA, L., & SAHUT, J. M. (2018). External knowledge sources, green innovation and performance. **Technological Forecasting and Social Change**, 129(January 2017), 210–220.

BERZKALNE, I., & ZELGALVE, E. (2014). Innovation and Company Value: Evidence from the Baltic Countries. **Regional Formation and Development Studies**, 3(3), 39–51.

BOONS, F., & LÜDEKE-FREUND, F. (2013). Business models for sustainable innovation: State-of-the-art and steps towards a research agenda. **Journal of Cleaner Production**, 45, 9–19.

BURNETT, R. D., SKOUSEN, C. J., & WRIGHT, C. J. (2011). Eco-effective management: An empirical link between firm value and corporate sustainability. **Accounting and the Public Interest**, 11(1), 1–15.

CAHYANTO, S. A., DARMINTO, & TOPOWIJONO. (2014). Pengaruh Struktur Modal dan Profitabilitas terhadap Nilai Perusahaan (Studi pada Perusahaan Otomotif dan Komponennya yang Terdaftar di Bursa Efek Indonesia Periode Tahun 2010-2013). **Jurnal Administrasi Bisnis (JAB)**, 11(1), 1–9.

CAMISÓN, C., & VILLAR-LÓPEZ, A. (2014). Organizational innovation as an enabler of technological innovation capabilities and firm performance. **Journal of Business Research**, 67(1), 2891–2902.

CHAN, H. K., YEE, R. W. Y., DAI, J., & LIM, M. K. (2016). The moderating effect of environmental dynamism on green product innovation and performance. **International Journal of Production Economics**, 181, 384–391.

CHANG, C. H. (2011). The Influence of Corporate Environmental Ethics on Competitive Advantage: The Mediation Role of Green Innovation. **Journal of Business Ethics**, **104**(3), 361–370.

CHEN, R.-H. (2014). Effects of Green Operations and Green Innovation on Firm's Environmental Performance. **Industrial Engineering and Management Systems**, **13**(2), 118–128.

CHEN, Y. S., LAI, S. B., & WEN, C. T. (2006). The influence of green innovation performance on corporate advantage in Taiwan. **Journal of Business Ethics**, **67**(4), 331–339.

CHENG, C. C. J., YANG, C. L., & SHEU, C. (2014). The link between eco-innovation and business performance: A Taiwanese industry context. **Journal of Cleaner Production**, **64**, 81–90.

CHIOU, T. Y., CHAN, H. K., LETTICE, F., & CHUNG, S. H. (2011). The influence of greening the suppliers and green innovation on environmental performance and competitive advantage in Taiwan. **Transportation Research Part E: Logistics and Transportation Review**, **47**(6), 822–836.

christensen, t. b. (2011). Modularised eco-innovation in the auto industry. **Journal of Cleaner Production**, **19**(2–3), 212–220.

CHUNG, K. H., & PRUITT, S. W. (2007). A Simple Approximation of Tobin's q. **Financial Management**, **23**(3), 70.

CZARNIEWSKI, S. (2015). Mechanisms for the Creation of Innovation in Contemporary Business and Economy. **International Journal of Academic Research in Accounting Finance and Management Sciences**, **5**(1), 33–38.

DANGELICO, R. M., & PONTRANDOLFO, P. (2010). From green product definitions and classifications to the Green Option Matrix. **Journal of Cleaner Production**, **18(16–17)**, 1608–1628.

DANGELICO, R. M., & PUJARI, D. (2010). Mainstreaming green product innovation: Why and how companies integrate environmental sustainability. **Journal of Business Ethics**, **95(3)**, 471–486.

DESWANTO, R. B., SIREGAR, S. V., DESWANTO, R. B., & SIREGAR, S. V. (2018). The associations' between environmental disclosure with financial performance, and firm value. **Socia**, **14(1)**, 180–183.

DORAN, J., & RYAN, G. (2016). The Importance of the Diverse Drivers and Types of Environmental Innovation for Firm Performance. **Business Strategy and the Environment**, **25(2)**, 102–119.

DRIESSEN, P. H., HILLEBRAND, B., KOK, R. A. W., & VERHALLEN, T. M. M. (2013). Green new product development: The pivotal role of product greenness. **IEEE Transactions on Engineering Management**, **60(2)**, 315–326.

EIADAT, Y., KELLY, A., ROCHE, F., & EYADAT, H. (2008). Green and competitive? An empirical test of the mediating role of environmental innovation strategy. **Journal of World Business**, **43(2)**, 131–145.

EZZI, F., & JARBOUI, A. (2016). Does innovation strategy affect financial, social and environmental performance? **Journal of Economics, Finance and Administrative Science**, **21(40)**, 14–24. F. HAIR JR, J., SARSTEDT, M., HOPKINS, L., & G. KUPPELWIESER, V. (2014). Partial least squares structural equation modeling (PLS-SEM). **European Business Review**, **26(2)**, 106–121.

FREEMAN, E. R. (2011). A Stakeholder Approach to Strategic Management. **International Review of Electrical Engineering**, **6(4)**, **1620–1626**.

FREEMAN, R.E, HARRISON, J. ., WICKS, A. ., PARMAR, B., & COLLE, DE S. (2010). Stakeholder Theory: The State of the Art. **Cambridge University Press**.

FREEMAN, R EDWARD. (1984). Strategic Management: A Stakeholder Approach. **Pitman**.

GHOZALI, I., & LATAN, H. (2014). Partial Least Square Concepts, Method and Applications Using the WarpPLS 4.0 Programs. Universitas Diponegoro.

GRAY, R., KOUHY, R., & LAVERS, S. (1995). Corporate social and environmental reporting. **Accounting, Auditing & Accountability Journal**, **8(2)**, **47–77**.

GUENSTER, N., BAUER, R., DERWALL, J., & KOEDIJK, K. (2011). The Economic Value of Corporate Eco-Efficiency. **European Financial Management**, **17(4)**, **679–704**.

GUNDAY, G., ULUSOY, G., KILIC, K., & ALPKAN, L. (2011). Effects of innovation types on firm performance. **International Journal of Production Economics**.

HAIR, J. F., HULT, G. T. M., & RINGLE, C. M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (Second Edi). **SAGE**.

HOJNIK, J., & RUZZIER, M. (2017). Does it pay to be eco? The mediating role of competitive benefits and the effect of ISO14001. **European Management Journal, 35(5), 581–594.**

HORVÁTHOVÁ, E. (2012). The impact of environmental performance on firm performance: Short-term costs and long-term benefits? **Ecological Economics, 84, 91–97.**

JANUARTI, I., & APRIYANTI, D. (2005). Pengaruh Tanggung Jawab Sosial Perusahaan terhadap Kinerja Keuangan. **MAKSI, 5(2), 227–243.**

KAM-SING WONG, S. (2012). The influence of green product competitiveness on the success of green product innovation. **European Journal of Innovation Management, 15(4), 468–490.**

KARABULUT, A. T. (2015). Effects of Innovation Types on Performance of Manufacturing Firms in Turkey. **Procedia - Social and Behavioral Sciences, 195, 1355–1364.**

KOMBIH, M. T. A., & SUHARDIANTO, N. (2017). Pengaruh Aktivitas Pemasaran, Kinerja Keuangan, dan Aset Tidak Berwujud Terhadap Nilai Perusahaan. **EKUITAS (Jurnal Ekonomi Dan Keuangan), 1(3), 281.**

KURNIASARI, W., & WARASTUTI, Y. (2015). The Relationship between CSR and Profitability to Firm Value in Sri Kehati Index. **Journal of Economic Behaviour, 5, 31–42.**

LEE, N., CHOI, Y. J., YOUN, C., & LEE, Y. (2012). Does Green Fashion Retailing Make Consumers More Eco-friendly? The Influence of Green Fashion Products and Campaigns on Green Consciousness and Behavior. **Clothing and Textiles Research Journal, 30(1), 67–82.**

LIN, R., CHEN, R.-H., & HO, T.-M. (2013). Market Demand, Green Innovation, and Firm Performance: Evidence from Hybrid Vehicle Industry. **International Conference on Technology Innovation and Industrial Management**, 194–209.

LIN, R. J., CHEN, R. H., & HUANG, F. H. (2014). Green innovation in the automobile industry. **Industrial Management and Data Systems**, 114(6), 886–903.

MANOPO, H., & ARIE, F. V. (2016). Pengaruh Struktur Modal, Ukuran Perusahaan dan Profitabilitas Terhadap Nilai Perusahaan Otomotif yang Terdaftar di Bursa Efek Indonesia Periode 2011-2014. **Jurnal EMBA**, 4(2), 485–497.

Meng, X. H., Zeng, S. X., Shi, J. J., Qi, G. Y., & Zhang, Z. B. (2014). The relationship between corporate environmental performance and environmental disclosures: An empirical study in China. **Journal of Environmental Management**, 145, 357–367.

MIROSHNYCHENKO, I., BARONTINI, R., & TESTA, F. (2017). Green practices and financial performance: A global outlook. **Journal of Cleaner Production**, 147, 340–351.

MOHD SUKI, N. (2017). Green products usage: structural relationships on customer satisfaction and loyalty. **International Journal of Sustainable Development and World Ecology**, 24(1), 88–95.

NISHITANI, K., JANNAH, N., & KANEKO, S. (2017). Does corporate environmental performance enhance financial performance? An empirical study of Indonesian firms. **Environmental Development**, 23(June), 10–21.

OSAZUWA, N. P., & CHE-AHMAD, A. (2016). The moderating effect of profitability and leverage on the relationship between eco-efficiency and firm value in publicly traded Malaysian firms. **Social Responsibility Journal**, 12(2), 295–306.

QUOC DUY, N., & HONG TUAN, V. (2014). Strategic Knowledge Management, Innovation and Firm Performance: An Empirical Study in Vietnamese Firms. **Journal of Economics and Development**, 1616(161), 60–73.

RAJAPATHIRANA, R. P. J., & HUI, Y. (2017). Relationship between innovation capability, innovation type, and firm performance. **Journal of Innovation & Knowledge**, 3(1), 44–55.

ROSLI, M. M., & SIDEK, S. (2013). The Impact of Innovation on the Performance of Small and Medium Manufacturing Enterprises: Evidence from Malaysia. **Journal of Innovation Management in Small & Medium Enterprise**, 2013, 1–16.

RUBERA, G., & KIRCA, A. H. (2017a). You gotta serve somebody: the effects of firm innovation on customer satisfaction and firm value. **Journal of the Academy of Marketing Science**, 45(5), 741–761.

SABRIN, SARITA, B., TAKDIR, D., & SUJONO. (2016). the Effect of Profitability on Firm Value in Manufacturing Company at Indonesia Stock Exchange. **The International Journal of Engineering and Science**, 5(10), 81–89.

SAEDI, S. ., & OTHMAN, H. M. (2017). The mediating role of process and product innovation in the relationship between environmental management accounting and firm's financial performance. **International Journal Innovation and Research**, 14(4), 421–438.

SANTOS, D. F. L., BASSO, L. F. C., KIMURA, H., & KAYO, E. K. (2014). Innovation efforts and performances of Brazilian firms. **Journal of Business Research**, **67**(4), 527–535.

SARUMPAET, S., NELWAN, M. L., & DEWI, D. N. (2017). The value relevance of environmental performance: Evidence from Indonesia. **Social Responsibility Journal**, **13**(4), 817–827.

SCHUETH, S. (2003). Socially Responsible Investing in the US. 189–194.

SINGH, M. P., CHAKRABORTY, A., & ROY, M. (2016). The link among innovation drivers, green innovation and business performance: empirical evidence from a developing economy. **World Review of Science, Technology and Sustainable Development**, **12**(4), 316.

SOEWARN, N., TJAHJADI, B., & FIRDAUSI, R. H. (2018). The Impacts of Carbon Emission Disclosure, Environmental Performance, and Social Performance on Financial Performance (Empirical Studies in Proper Participating Companies Listed in Indonesia Stocks Exchange, Year 2013 – 2016). 2018, 957–971.

SOLIMUN, M., & RATMONO, D. (2013). Analysis of SEM-PLS with WarpPLS 3.0 for Nonlinear Relations in Social and Business Research. **CV Andi Offset**.

SOLTMANN, C., STUCKI, T., & WOERTER, M. (2013). The Performance Effect of Environmental Innovations. **Ssrn**, **330**.

SUCUAHI, W., & CAMBARIHAN, J. M. (2016). Influence of Profitability to the Firm Value of Diversified Companies in the Philippines. **Accounting and Finance Research**, **5**(2).

SULASTRI, HANAFLI, A., & DEWI, A. (2018). The Effect of Stock Ownership Structure, Capital Structure, and Profitability to Firm Value in Manufacturing Company Sector in Indonesia Stock Exchange. *7(11)*, 187–192.

TANG, M., WALSH, G., LERNER, D., FITZA, M. A., & LI, Q. (2017). Green Innovation, Managerial Concern and Firm Performance: An Empirical Study. ***Business Strategy and the Environment*, 155–162.**

TARIQ, A., BADIR, Y., & CHONGLERTTHAM, S. (2019). Green innovation and performance: moderation analyses from Thailand. ***European Journal of Innovation Management*.**

TARIQ, A., BADIR, Y. F., TARIQ, W., & BHUTTA, U. S. (2017). Drivers and consequences of green product and process innovation: A systematic review, conceptual framework, and future outlook. ***Technology in Society*, 51, 8–23.**

ULUM, I. (2015). Intellectual Capital Disclosure: An analysis Four Way Numerical Coding System. ***Jurnal Akuntansi & Auditing Indonesia*, 2001, 0–13.**

UMRIE, H. R. H., & YULIANI. (2014). Ownership Structure, Innovation to Firm Value with the Financing Decision as Mediation. ***Journal of Economics, Business, and Accountancy Ventura*, 17(2), 245–258.**

USMAN, M., SHAIQUE, M., KHAN, S., SHAIKH, R., & BAIG, N. (2017). Impact of R&D Investment on Firm Performance and Firm Value: Evidence from Developer Nations (G-7). ***Revista de Gestão, Finanças e Contabilidade*, 7(2), 302–321.**

WARUSAWITHARANA, M. (2015). Research and Development, Profits and Firm Value: A Structural Estimation. ***Ssrn*, 6, 531–565.**

WENG, H. H. R., CHEN, J. S., & CHEN, P. C. (2015). Effects of green innovation on environmental and corporate performance: A stakeholder perspective. **Sustainability (Switzerland)**, **7(5)**, 4997–5026.

XIE, X., HUO, J., & ZOU, H. (2019). Green process innovation, green product innovation, and corporate financial performance: A content analysis method. **Journal of Business Research**, **xxxx**, 1–10.



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